

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An extruded, stamped, pressed, rolled or injection molded gypsum plaster product which is substantially free of macro defects, said product being made from a paste comprising:

α gypsum plaster;

water in an amount of from 70% to 170% of the stoichiometric amount;

a binder; and

a clay or another rheology modifier functionally equivalent to a clay, present in an amount to give to paste a yield strength which makes it self-supporting wherein said paste is extrudable prior to hardening into said plaster product.

~~the product being substantially free of macro defects.~~

2. (Previously Presented) An extruded, stamped, pressed, rolled or injection molded gypsum plaster product substantially free of macro defects and made from a paste comprising:

α gypsum plaster;

water in an amount of from 70% to 170% of the stoichiometric amount,

a binder; and

a rheology modifier such that the paste has a yield stress sufficient to make the paste self supporting

3. (Original) A product according to claim 2 in which the rheology modifier is a clay.

4. (Previously Presented) A product according to claim 2 in which the rheology modifier is present in the said paste in an amount of up to 20% weight of plaster.

5. (Previously Presented) A product according to claim 2 in which all the gypsum plaster is α gypsum plaster.

6. (Cancelled).

7. (Previously Presented) A product according to claim 2 in which the binder is a cellulosic binder.

8. (Original) A product according to claim 1 in which the binder is at least one of polyvinylalcohol and polyethyleneglycol.

9. (Previously Presented) A product according to claim 2 in which the binder is present in an amount of at least 0.1% by weight.

10. (Previously Presented) A product according to claim 2 in which the binder is present in an amount of no more than 10% by weight.

11. (Previously Presented) The product according to claim 2, further comprising a component selected from the group consisting of setting retarder, lightweight aggregate and fiber.

12. (Original) A product according to claim 11 in which the lightweight aggregate is ceramic microspheres or cenospheres.

13. (Original) A product according to claim 11 in which the lightweight aggregate is present in an amount of up to 20% by weight.

14. (Original) A product according to claim 11 in which the fiber is glass or polypropylene fiber.

15. (Original) A product according to claim 11 in which the fiber is present in an amount of up to 10% by weight.

16. (Cancelled)

17. (Original) A method for making a gypsum plaster product according to claim 1 comprising forming a paste by:

mixing a gypsum plaster, water in an amount of from 70% to 170% of the stoichiometric amount and a binder:

mixing into that mixture a clay or other rheology modifier functionally equivalent to a clay;

working the paste into a plastic condition; and

extruding, stamping, pressing or injection molding the paste to form a shaped product.

18. (Original) A method for making a gypsum plaster product according to claim 2 comprising forming a paste by:

- mixing α gypsum plaster, water in an amount of from 70% to 170% of the stoichiometric amount and a binder;
- mixing into that mixture a rheology modifier such that the paste has a yield stress sufficient to make the paste self supporting;
- working the paste into a plastic condition; and
- extruding, stamping, pressing or injection molding the paste to form a shaped product.

19. (Original) A method according to claim 18 in which a clay is mixed into the said mixture as the rheology modifier.

20. (Original) A method according to claim 17, further comprising forming a pre-gel/suspension comprising water and binder and adding α gypsum plaster to the pre-gel/suspension.

21. (Original) A method according to claim 17 further comprising adding a setting retarder to the composition.

22. (Original) A method according to claim 17 carried out at a temperature above 60°C.

23. (Original) A method according to claim 17 in which the paste is extruded after working and in which the extruded paste is supported as it leaves the die.

24. (Previously Presented) A self-supporting, unset gypsum plaster paste comprising:
a gypsum plaster;
water in an amount of from 70 % to 170 % of the stoichiometric amount;
a binder; and
a rheology modifier such that the paste has a yield stress sufficient to make the paste self supporting, the product being substantially free of macro defects.

25. (Previously Presented) The paste according to claim 24 in which the rheology modifier is a clay.

26. (Previously Presented) A product according to claim 2 in which the binder is present in an amount of at least 1% by weight.

27. (Previously Presented) A product according to claim 2 in which the binder is present in an amount of no more than 5% by weight.

Claim 28 (Cancelled)

29. (Previously Presented) The product according to claim 2 wherein the binder is at least one of polyvinylalcohol and polyethyleneglycol.

30. (Previously Presented) The product according to claim 3 wherein the binder is at least one of polyvinylalcohol and polyethyleneglycol.

31. (Original) A product according to claim 4 in which the binder is at least one of polyvinylalcohol and polyethyleneglycol.

32. (Original) A product according to claim 5 in which the binder is at least one of polyvinylalcohol and polyethyleneglycol.

33. (Original) A product according to claim 6 in which the binder is at least one of polyvinylalcohol and polyethyleneglycol.

34. (Original) A product according to claim 7 in which the binder is at least one of polyvinylalcohol and polyethyleneglycol.

35. (Original) A method according to claim 18 in which the paste is extruded after working and in which the extruded paste is supported as it leaves the die.

36. (Previously Presented) An extruded, stamped, pressed and rolled or injection molded gypsum plaster product substantially free of macro defects and made from a paste, which consists essentially of

α gypsum plaster;

water in an amount of from 70% to 170% of the stoichiometric amount,

a binder; and

a rheology modifier such that the paste has a yield stress sufficient to make the paste self supporting.

37. (Previously Presented) An extrudable gypsum plaster paste which comprises

α gypsum plaster

13 to 32 % by weight of water based on the weight of the α gypsum plaster paste, said water being present in an amount necessary to achieve substantially complete rehydration of the plaster from the hemihydrate form to the dihydrate form,

at least 1 % to up to 10 % by weight of a binder, and

10 - 20% by weight of a rheology modifier.

38. (Previously Presented) The extrudable gypsum plaster paste of claim 37 where the rheology modifier is a clay.